

SN 10,017,643
Docket No. S-96,583
In Response to Office Action dated January 14, 2005

REMARKS

The Examiner has reopened prosecution in this case in view of applicant's appeal brief filed on September 15, 2004, and has entered new grounds of rejection of claims 1-8, all of the claims in this case. Applicant has opted to submit this amendment and response under 35 CFR 1.111.

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for reasons set out by the Examiner and addressed below by applicant.

First, applicant has updated the information on Related Cases from which applicant claims priority to include the issued patent number for S.N. 09/764,612, and to indicate that S.N. 09/512,962 has been allowed.

Claim 1 has been rejected on the basis that the step (j) calls for the repetition of steps (d) through (i) in order to minimize bias from known electron density maps, but fails to indicate what is changing in the repetitions leading to the claimed result. Applicant has amended claim 1 to recite that the steps are repeated with the updated electron density maps until changes in the most probable crystallographic phases are minimal between successive derivations. The crystallographic phases derived from these iterations result in the "minimum bias from known electron density maps." Support for this amendment is found at page 8, lines 6-18.

The Examiner also comments that claim 1 lacks a recitation to a "most probable" determination for an updated electron density map as set out in the Summary of the Invention at lines 30-33 on page 5 of applicant's specification. With this alleged lack of concurrence, claim 1 is not considered to be commensurate in scope with the invention as set out in the summary.

Applicant respectfully traverses his rejection by the Examiner. A comparison of the specification language cited by the Examiner and the claim 1 recitation is set out below:

Summary of Invention: "An updated electron density map is derived using crystallographic phases determined to be most probable from the crystallographic phase probability distributions for each one of the reflections."

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Claim 1: "(i) deriving an updated electron density map using crystallographic phases determined to be most probable from the crystallographic phase probability distributions for each one of the reflections."

The statement in the specification is simply the claim 1 recitation rewritten in a sentence form with no change in process function or scope. Appellant asserts that the claim 1 recitation is commensurate in scope with the specification teaching at page 5, lines 30-32.

Claim 4 is rejected for failing to define where the limitation of claim 4 arises in claim 1. Applicant has amended claim 4 to specifically recite the limitation as an embodiment of "identifying features of the electron density map."

Claim 7 is rejected as being unclear where the recited methodology is used in claim 1. Claim 1 has been amended to recite the step of "determining the most probable crystallographic phases" as a step before "deriving an updated electron density map" in order to more clearly recite the relationship between the most probable crystallographic phases and the updated electron density map." Claim 1 has been further amended to more clearly recite that a "set" of crystallographic phases is being determined for each reflection for use in deriving updated electron maps. Then claim 7 has been amended to recite that the recited methodology is included in the step of "determining a set of the most probable crystallographic phases" as recited in amended claim 1. The support for this methodology is found at page 7, lines 20-25. The abbreviation "FFT" has been replaced by its full name.

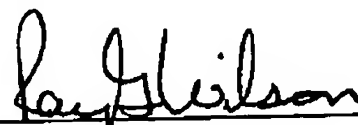
Applicant appreciates the attention provided by the Examiner in reviewing the claims in this case. The above amendments are believed to provide the clarity in claim language requested by the Examiner. Accordingly, applicant asserts that claims 1-8, as now amended, are in condition for allowance and requests that the Examiner pass the case to issue.

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Applicant's attorney would be pleased to discuss any of the issues remaining in this case if the Examiner considers such a discussion would assist in placing the case in condition for allowance.

Respectfully submitted,

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